

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): An apparatus for radially centering a treatment region of a brachytherapy catheter in a lumen of a body vessel, the catheter having a center line, the apparatus comprising a first monofilament wire-form having:

- i) proximal and distal ends,
- ii) an expanded configuration preformed with multiple lobes arranged in a radially symmetrical staggered sequence along the center line, each lobe extending from the center line to an apex engageable with the lumen of the body vessel, and
- iii) a collapsed configuration formable compactly about the center line by drawing apart the ~~wire-form~~ proximal and distal ends of the first wire-form.

Claim 2 (currently amended): The apparatus of claim 1 wherein the first wire-form, when in the expanded configuration, has a length sufficient to extend over the treatment region of the brachytherapy catheter.

Claim 3 (currently amended): The apparatus of claim 2 wherein the ~~wire-form~~ proximal and distal ends of the first wire-form are attachable to the brachytherapy catheter.

Claim 4 (currently amended): The apparatus of claim 1 wherein the expanded configuration of the first wire-form comprises a distal portion of the first wire-form, the distal portion having a length sufficient to extend over the treatment region of

the catheter, the first wire-form further comprising a proximal portion extending from the distal portion at least to a proximal end of the catheter, the proximal portion being capable of drawing the ~~wire-form~~ proximal end of the first wire-form away from the ~~wire-form~~ distal end of the first wire-form.

Claim 5 (original): The apparatus of claim 1 wherein the lobes are generally disposed in one plane extending through the center line.

Claim 6 (currently amended): The apparatus of claim 5 ~~wherein the wire-form is adapted for conjunction about the catheter with~~ further comprising at least one additional monofilament wire-form similar to the first monofilament wire-form and conjoined about the catheter with the first wire-form ~~adapted for radially centering a treatment region of a catheter in a lumen,~~ such that a combination of the wire-forms has a radially symmetrical sequence of lobes arranged along the center line.

Claim 7 (currently amended): The apparatus of claim 6 wherein the combination of the wire-forms has a radially symmetrical sequence of lobes that is staggered along the center line.

Claim 8 (original): The apparatus of claim 1 wherein the lobes are generally disposed in at least two radial directions extending through the center line.

Claim 9 (original): The apparatus of claim 1 wherein the lobes have shapes that are generally semi-circular or semi-elliptical.

Claim 10 (currently amended): The apparatus of claim 1 wherein each lobe has starting and ending segments that are at least partially wrapped around the center line.

Claim 11 (original): The apparatus of claim 10 wherein the ending segment of one lobe is also the starting segment of an adjacent lobe.

Claim 12 (original): The apparatus of claim 10 wherein the starting and ending segments of each lobe are on opposite sides of the center line.

Claim 13 (original): A catheter for brachytherapy treatment of a body vessel from within a lumen thereof, the catheter comprising:

an elongate flexible shaft having a distal end and a radiation source located within a distal treatment region;

an actuator element having a distal end and being slidably disposed along the shaft;

a monofilament wire-form mounted about the distal treatment region for radially centering the treatment region within the lumen, the wire-form having:

i) a distal end coupled to the shaft adjacent the distal end thereof,

ii) a proximal end coupled to the distal end of the actuator,

iii) an expanded configuration preformed with multiple lobes arranged in a radially symmetrical staggered sequence along the distal treatment region, each lobe extending from adjacent the distal treatment region to an apex engageable with the lumen of the body vessel, and

iv) a collapsed configuration formable compactly about the shaft by sliding the actuator proximally with respect to the shaft to draw apart the wire-form proximal and distal ends.

Claim 14 (original): The catheter of claim 13 wherein the lobes are generally disposed in one plane extending through the distal treatment region.

Claim 15 (original): The catheter of claim 13 further comprising at least one additional wire-form adapted for radially centering a treatment region of a catheter in a lumen, such that a conjunction of the wire-forms has a radially symmetrical sequence of lobes arranged along the distal treatment region.

Claim 16 (original): The apparatus of claim 15 wherein the radially symmetrical sequence of lobes is staggered along the distal treatment region.

Claim 17 (original): The catheter of claim 13 wherein the lobes are generally disposed in at least two radial directions extending through the distal treatment region.

Claim 18 (original): The catheter of claim 13 wherein the lobes have shapes that are generally semi-circular or semi-elliptical.

Claim 19 (original): The catheter of claim 13 wherein each lobe has starting and ending segments that are at least partially wrapped around the distal treatment region.

Claim 20 (original): The catheter of claim 19 wherein the starting segment of one lobe is also the ending segment of an adjacent lobe.

Claim 21 (original): The catheter of claim 19 wherein the starting and ending segments of each lobe are on opposite sides of the distal treatment region.

Claim 22 (original): The catheter of claim 13 wherein the actuator is a tubular sleeve disposed about the shaft.

Claim 23 (original): The catheter of claim 13 wherein the actuator is a filament at least partially disposed within the shaft.